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THESIS

THE MHS PHARMACY BENEFIT:
EFFICACY OF CIVILIAN COST SAVING STRATEGIES

by

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December 2006

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A contributing factor in the rising costs of the Military Healthcare System (MHS) budget is the pharmacy benefit. In efforts to reduce or contain the costs associated with this benefit, the MHS has implemented several cost saving strategies that were adopted directly from private health care organizations. These strategies include formulary restrictions, generic substitutions, and beneficiary cost sharing that uses a tiered co-payment structure. These strategies are primarily designed to save costs by influencing the behaviors and attitudes of beneficiaries, restricting their access to options with higher costs, and directly shifting a portion of the programs cost through co-payments. This thesis concludes that by implementing these utilization management strategies, the MHS has experienced results that are as good as or better than those experienced by the civilian sector. However, Tricare pharmacy expenditures continue to increase at a faster rate than other components of the MHS demonstrating that the implementation of these strategies, though successful when compared to civilian benchmarks, have not sufficiently contained Tricare pharmacy expenditures. To be successful, the DoD must use a multifaceted approach to contain these escalating expenditures. Ultimately, dramatic cost shifting may be the only way to lower expenditures

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THE MHS PHARMACY BENEFIT: EFFICACY OF CIVILIAN COST SAVING STRATEGIES

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ABSTRACT

A contributing factor in the rising costs of the Military Healthcare System (MHS) budget is the pharmacy benefit. In efforts to reduce or contain the costs associated with this benefit, the MHS has implemented several cost saving strategies that were adopted directly from private health care organizations. These strategies include formulary restrictions, generic substitutions, and beneficiary cost sharing that uses a tiered co-payment structure. These strategies are primarily designed to save costs by influencing the behaviors and attitudes of beneficiaries, restricting their access to options with higher costs, and directly shifting a portion of the programs cost through co-payments. This thesis concludes that by implementing these utilization management strategies, the MHS has experienced results that are as good as or better than those experienced by the civilian sector. However, Tricare pharmacy expenditures continue to increase at a faster rate than other components of the MHS demonstrating that the implementation of these strategies, though successful when compared to civilian benchmarks, have not sufficiently contained Tricare pharmacy expenditures. To be successful, the DoD must use a multifaceted approach to contain these escalating expenditures. Ultimately, dramatic cost shifting may be the only way to lower expenditures

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EXECUTIVE SUMMARY

Over the past six years, the budget for the Military Healthcare System (MHS), also known as Tricare, has doubled in size. It rose from $19 billon in the year 2001 to approximately $38 billion in 2006 (Evaluation of the Tricare Program, 2006). A contributing factor to these rising expenditures is the pharmacy benefit which is the single largest component of the military health system's budget. In 2005, the pharmacy benefit accounted for 15 percent of the total MHS' budget. Its escalating costs include the steady increases in utilization and cost of the prescription drug benefit of the MHS population. Spending on the outpatient pharmacy program alone increased from $3 billion in 2001 to over $5.4 billion in 2005 (Evaluation of the Tricare Program, 2006).

Although the MHS has implemented several initiatives to manage the cost of the pharmacy benefit many of these cost saving strategies were adopted directly from private health care organizations and may not consider the unique mission of the MHS. These strategies include formulary restrictions, generic substitutions, and beneficiary cost sharing that uses a tiered co-payment structure. They are primarily designed to save costs by influencing the behaviors and attitudes of beneficiaries, restricting their access to options with higher costs, and directly shifting a portion of the programs cost through co-payments. To determine the effectiveness of these strategies when applied to the military pharmaceutical benefit program it is paramount to understand the Military Health Care System and the population it serves and the unique benefits provided to the Armed Forces by the United States government and the challenges to meet them. Additionally, it is important to evaluate current trends in the pharmacy industry and compare them to those occurring in the MHS.

Over the past 10 years, the MHS began implementing civilian sector utilization management strategies designed to slow increases in pharmacy expenditures. The MHS has experienced results that are as good as or better than those experienced by the civilian sector. If matching the results achieved in the civilian sector is the benchmark for success, then implementing civilian sector utilization management strategies has been successful.

However, the Tricare Pharmacy program is projected to continue to increase at a faster rate than other components of the MHS. Consequently, this continual increase in the pharmacy budget in proportion to the overall MHS budget demonstrates that the implementation of these civilian utilization management practices, though successful when compared to civilian benchmarks, have not sufficiently contained Tricare pharmacy expenditures.

In response to escalating costs, the civilian sector is continually shifting a greater portion of the cost burden to their beneficiaries through higher co-payments and larger insurance premiums or simply reducing the benefits they offer. History shows that Congress's response to escalating Tricare expenditures has been to implement civilian strategies to increase efficiency and cost effectiveness but simultaneously they increase benefits and reduce out of pocket expenses for beneficiaries. As pressure to contain expenditures continues to mount, Congress may be swayed to change its past behavior and follow the civilian sector by shifting a portion of the cost burden to beneficiaries.

The current Tricare pharmacy benefit uses a three tiered co-payment schedule that requires a beneficiary to pay very modest co-payments when compared to the civilian sector. These co-payments are in no way representative of the true cost of the benefit and some may argue that in relative terms the difference between the co-payment, $3 for generic and $9 for formulary, are so small compared to the actual cost that they do not provide incentive for beneficiaries to differentiate between them.

Tricare beneficiaries have lower per beneficiary prescription drug utilization and expenditures rates than the civilian population. The utilization of generic drugs by Tricare beneficiaries has increased every year since the introduction of the three tiered co-payment schedule and today over 53 percent of all prescriptions filled in the MHS are generic. This is similar to the generic utilization rates in the civilian health care industry. This would seem to indicate that the current co-payments schedule does differentiate between drug tiers and provides as much incentive and behavior modification as the much higher rates charged in the civilian sector. Proportionally raising each of the current co-payments in the schedule would not provide Tricare beneficiaries more incentive to change behaviors; it would just be a cost shifting mechanism.

In the Military Health System the place where an MHS beneficiary fills their prescription directly affects expenditures. Expenditures for prescription drugs obtained from Tricare retail pharmacies (TRRx) are typically much higher than those dispensed through Military Treatment Facility (MTF) pharmacies or the Tricare Mail Order Pharmacy (TMOP). This is primarily due to volume purchase price negotiations and the interpretation of the Veterans Health Care Act of 1992. Drugs dispensed at MTF pharmacies and the TMOP are purchased at prices negotiated by the Defense Supply Center in Philadelphia and the Department of Veterans Affairs directly with drug manufacturers. These negotiated prices do not apply to retail pharmacies and as such the prices at retail pharmacies can be two and even three times as much. The current tiered co-payment schedule does not differentiate between these points of services.

Defense Department officials proposed to change the pharmacy co-payment schedule in the FY 2007 budget request. The new co-payment schedule appears to be designed to provide incentives for beneficiaries to make cost effective choices when choosing a point of service to fill prescriptions. Based on the research in this thesis, incentivising beneficiaries to avoid the TRRx is an effective cost strategy. Time will show if the new co-payments are large enough to actually influence the desired beneficiary behavior.

The reason that the TRRx is the most expensive point of service to use is that DoD is unable to apply federal pricing at the TRRx, while it is able to do so at the MTF and TMOP. DoD would like to apply federal pricing at the TRRx and have made attempts to do so. Drug manufactures are apposed to this and argue that there is no legal basis under the Veterans Health Care Act of 1992 for DoD to be allowed to apply these discounts at the TRRx. This issue is currently being debated by the U.S. Court of Appeals for the Federal Circuit.

Ultimately DoD must use a multifaceted approach to contain the escalating expenditures of the pharmacy program. Incentivising beneficiaries to choose high value drugs dispensed through the least expensive point of service will dramatically impact the current expenditures. If the DoD is unable to secure federal pricing at the TRRx they

must ensure that beneficiaries have the appropriate incentives to migrate to the TMOP. If not, dramatic cost shifting may be the only way to lower expenditures

I. RISING COSTS IN THE MHS PHARMACY BENEFIT

Over the past six years, the budget for the Military Healthcare System (MHS), also known as Tricare, has doubled in size. It rose from $19 billon in the year 2001 to approximately $38 billion in 2006 (Evaluation of the Tricare Program, 2006). A contributing factor to these rising expenditures is the pharmacy benefit which is the single largest component of the MHS' budget. In 2005, the pharmacy benefit accounted for 15 percent of the total military health system's budget. Its escalating costs include the steady increases in utilization and cost of the prescription drug benefit of the MHS population. Spending on the outpatient pharmacy program alone increased from $3 billion in 2001 to over $5.4 billion in 2005 (Evaluation of the Tricare Program, 2006).

Although the MHS has implemented several initiatives to manage the cost of the pharmacy benefit many of these cost saving strategies were adopted directly from private health care organizations and may not consider the unique mission of the MHS. These strategies include formulary restrictions, generic substitutions, and beneficiary cost sharing that uses a tiered co-payment structure.

The purpose of this study is to determine the effectiveness of implementing cost saving strategies from the civilian sector in the MHS pharmaceutical benefit program. In order to do so, a brief background of the Military Health Care System and the population it serves will be provided in Chapter II. Chapter III is a description of the civilian pharmacy cost trends that occurred over the past decade and a discussion on civilian utilization management practices. Chapter IV will cover the military pharmacy cost trends and utilization management practices. In addition, it will include a comparison of drug utilization patterns and drug expenditure patterns of military beneficiaries with that of civilian beneficiaries. Chapter V concludes the thesis by discussing the effectiveness of various current utilization management strategies as applied to the MHS, and considers the effectiveness of additional cost saving strategies.

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II. THE MILITARY HEALTHCARE SYSTEM

A. OVERVIEW

The approach used by the Department of Defense to provide medical services to the armed forces of the United States is unique and unparalleled. The military health care system is responsible for achieving two missions: first, to provide and maintain readiness and medical support to military operations, and second, to provide a comprehensive health benefit to its eligible beneficiaries (Evaluation of the Tricare Program, 2006).

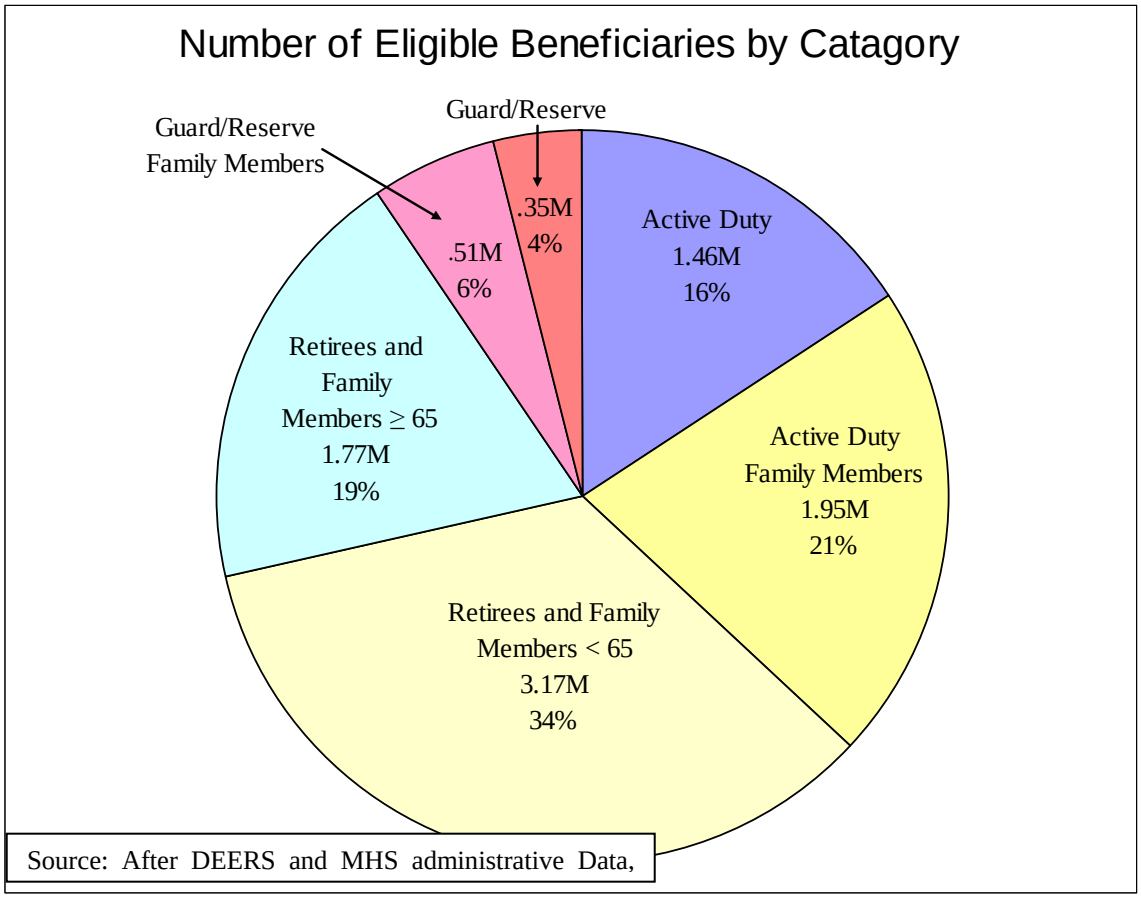
The wartime/operational readiness mission is a uniquely military mission and requires that medical personnel and equipment are ready to deploy in support of military operations to include: war, peacekeeping and humanitarian operations, and military training. Additionally, the readiness mission requires that the military health system perform activities that will assure that all military personnel are medically ready and prepared to deploy in support of any of these types of military operations.

The purpose of the benefits mission is to provide everyday comprehensive healthcare to the beneficiary population. This mission is continual; it does not go away when active duty medical personnel and equipment are deployed. Both missions are accomplished through a provision of health coverage plans that first utilized the capacity that exists in Military Treatment Facilities, the direct care system, regardless of any current military operations, and then expands health coverage through purchased care from civilian providers, also known as the indirect care system. This makes it possible for the DoD to accomplish both missions simultaneously.

The MHS beneficiary population consists of active duty and retired members of the Army, Navy, Air Force, and Marine Corps, and their dependents, along with active members of the Coast Guard, the National Oceanographic and Atmospheric Administration and members of the Public Health Service and their dependents. The healthcare benefits that they receive differ from the benefits received by those who work for civilian companies. Military healthcare is an entitlement, thus an MHS beneficiary has a legal right to the benefits specified by United States law. Eligibility is defined under article 32 of the Code of Federal Regulation. At the end of fiscal year 2005, there were approximately 9.2 million people of all ages eligible for care through the Military

Health System (Figure 1). Figure 1 separates the MHS beneficiaries into six categories and shows the corresponding population and the percent of the total MHS beneficiary population of each beneficiary category.

Figure 1. Number of Eligible Beneficiaries by Category



B. THE HISTORICAL FRAMEWORK

To evaluate and determine the effectiveness of the Tricare pharmacy benefit strategies, it is important to understand the current state and structure of MHS. To do this, it is necessary to briefly review the system's origins and historical policy decisions. The Department of Defense's military health system began in 1775, when the Continental Congress established the medical service in support of a 20,000 man army (Evolution of the Continental Army Medical Department). Congress slowly enacted changes to this legislation that eventually lead to permissive care for dependents, and subsequently for retirees and their dependents.

At first, all medical care was provided within the military treatment facilities that were owned and operated by the Department of Defense, also known as the direct care

system. However, in 1956, the Dependents' Medical Care Act was passed and authorized the Department of Defense to purchase care, from civilian health services, as a way to supplement the direct care capabilities. This assured that military dependents had access to continuous health coverage and was the beginning of the purchased care system (Burrelli, 1991).

Having the authority to enhance the MHS with purchased care, the Department of Defense chose to access civilian health services on a cost-reimbursement basis. This fee-for-service program became known as the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) (Burrelli, 1991). The CHAMPUS cost schedule for reimbursing civilian providers was similar to that of Medicare. As with Medicare, the fees paid to reimburse civilian providers for their services began to increase substantially.

By the late 1970s, escalating costs had many questioning the sustainability of the military health system. However, the MHS was not the only health system feeling the pressures of out-of-control health care costs. Annual double digit increases in health care costs became the norm throughout the health care industry, in both public and private health care systems. Congress responded to these increases by mandating DoD to implement cost containment practices similar to those occurring in the civilian health care industry. They soon began to look for ways to structure the system using a managed care structure.

1. The Beginning of Managed Care

To help transform CHAMPUS into a managed care system, three significant issues were identified: the need for better integration of direct and purchased care, establishment of an enrollment system, and the creation of a Military Health Care Account (H.R. Rep. No. 99-718, at 237-246 (1986)).

Throughout the 80s and into the early 90s, the Department of Defense initiated demonstration projects to help determine how to transition into managed care. The process of developing a plan to transition the military health system into a managed care system was heavily scrutinized and governed by Congress and the Government Accounting Office. In 1993, Congress directed the DoD to develop a Health Maintenance Organization (HMO) benefit option that was modeled on both private sector and other government health insurance options. This HMO benefit was to then be

included in all future initiatives. The beneficiary cost shares associated with this HMO option were to be no greater than those that would be incurred under the traditional CHAMPUS fee-for-service structure (National Defense Authorization Act, 1994). In 1995, the MHS' HMO was born, now known as the Tricare program.

2. TRICARE

Tricare brought together the health resources of the direct care and the indirect care systems. In accordance with Congressional mandates, Tricare offered beneficiaries three primary options (Tricare: the basics, 2003):

(1) Tricare Standard: This option was similar to CHAMPUS and offered traditional indemnity fee-for-service benefit. It allowed beneficiaries to use non-network providers. It was open to all beneficiaries except active duty service members; no enrollment necessary. This option was the least cost effective and had the most expensive cost shares for beneficiaries.

(2) Tricare Extra: This option was similar to a civilian preferred provider network or PPO. Beneficiaries had the option of enjoying reduced cost sharing through the use of civilian providers that were part of the Tricare Prime network of contracted professionals or hospitals. No enrollment was required to use the contracted network.

(3) Tricare Prime: A tightly managed HMO like benefit requiring that each beneficiary enroll in the program. Each enrollee was assigned a primary care provider who coordinate and manage their care.

These Tricare options were available to retirees and their dependents until they reached the age of 65 and became eligible for Medicare. Once beneficiaries were eligible for Medicare, it replaced Tricare as the payer for medical services. These over 65 beneficiaries did remain eligible for care and service on a space-available basis through the direct care system. The military began to draw down the active duty force in the late 80s and many bases began to close. These base closures combined with an emphasis on ensuring Tricare Prime enrollees had access to cost effective care through the direct care system meant that less space was available to see non-prime or Medicare eligible patients in the direct care system. Medicare benefits were not comparable to those offered through Tricare and the out of pocket cost shares of Medicare were also higher. It could

be argued that this policy resulted in an erosion of benefits for beneficiaries when they reached the age of 65. Military retirees and their dependents over the age of 65 were the only federal government personnel prevented from using their employee-provided healthcare after reaching the age of 65 (Burrelli, 2000).

Since the implementation of Tricare, the cost of healthcare continued to grow in the MHS and, like the civilian sector, pharmaceuticals were seen as a large contributor to these escalating expenditures. U.S. Congress inevitably identified the pharmacy benefit as an area for reform and, through Section 701 of the *National Defense Authorization Act for Fiscal Year 2000,* they directed the Secretary of Defense to establish an effective, efficient, and integrated pharmacy benefits program for the MHS beneficiaries.

C. THE PHARMACY BENEFIT

The Tricare pharmacy benefit is available to all beneficiaries regardless of the Tricare program option in which they participate. It provides coverage for virtually all Food and Drug Administration approved prescription medications and attempts to make these medications conveniently accessible. Beneficiaries have the option to fill their prescriptions using any of four points of service: Department of Defense outpatient pharmacies located in military treatment facilities; the Tricare Mail Order Pharmacy (TMOP); a network of retail pharmacies (TRRx) that have contracted with Tricare to provide services; and non-network retail pharmacies.

Since the advent of Tricare, prescription drug costs and utilization of the pharmacy benefit have steadily increased. The Department of Defense Pharmacoeconomics Center estimates that the amount spent on prescription drugs more than tripled in size in 2005 from $1.6 billion in 2000 to over $5.4 billion (PEC estimate using PDTS Data). The increase and pharmacy utilization was attributed to changes in the beneficiary demographics and the propensity of physicians to prescribe more drugs. This was due to advances in pharmaceuticals which contributed to the increase in drug choices for treating and managing illnesses. In addition to increased utilization, differences in drug prices at dispensing locations and the type of drugs being prescribed were also major contributors to the increasing costs of the MHS pharmacy benefit.

In an effort to control these escalating costs, the Tricare pharmacy program implemented utilization management practices that have been adopted from civilian

managed care organizations such as tiered co-payments and restricted formularies. The objective of these practices is to allow beneficiaries the freedom to make convenient choices while providing incentives to use the most cost efficient pharmacy options.

TRICARE Pharmacy Points of Service

a. Military Treatment Facility Pharmacies

There are 536 MTF pharmacies operated by 121 MTFs spread throughout the United States (Evaluation of the Tricare Program, 2006). Beneficiaries can fill prescriptions with up to a 90-day supply of most medications at an MTF pharmacy free of charge. MTF pharmacies will accept prescriptions written by any Tricare authorized provider, civilian or military, provided the medication is listed on the local MTF formulary. Each MTF pharmacy is required to make available all drugs on the DoD Basic Core Formulary. MTF pharmacies are the least costly place for beneficiaries to obtain prescription medications because they do not charge co-payments (Tricare Website, 2006). In 2005, 47 percent of all MHS pharmacy workload was performed by MTF pharmacies accounting for 30 percent of total expenditures (DoD PEC data).

b. TRICARE Mail Order Pharmacy

The Tricare Mail Order Pharmacy (TMOP) is available for prescriptions that are taken on a regular basis. The MHS has contracted with a pharmacy benefits management company, Express Scripts, to administer and operate the mail order pharmacy from a state of the art facility in Tempe, Arizona. The TMOP is the largest mail order pharmacy in the United States. Beneficiaries fill out a form and submit it along with their prescription to the TMOP. The prescription drug is then mailed directly to beneficiary. Like the MTF pharmacy, beneficiaries may request up to a 90-day supply of most medications. There are co-payments associated with drugs dispensed through the TMOP. Therefore, with the exception of active duty members, MHS beneficiaries are required to mail their co-payment along with the prescription. Once submitted, prescriptions can be refilled by phone, mail, or online (Tricare Website, 2006). In 2005, 6 percent of all MHS pharmacy workload was performed through the TMOP, accounting for 12 percent of total expenditures (DoD PEC data).

c. TRICARE Retail Pharmacy Network

There are over 54,000 civilian retail pharmacies that are part of the Tricare retail pharmacy network. The MHS contracts with Express Scripts to administer and operate the TRRx. Beneficiaries are only allowed to request up to a 30-day supply of medications through a TRRx. There are co-payments associated with drugs dispensed through the TRRx (Tricare Website, 2006). The TRRx represents 47 percent of the MHS pharmacy workload and 58 percent of the total expenditures. Utilization of the TRRx is growing at a faster pace than the other two options even though it is clearly the most expensive option for the MHS (DoD PEC data).

D. DATA AND METHODOLOGY

The data and information used in preparing this thesis came from several sources. A comprehensive review was conducted of relevant policy manuals, literature, and other materials on the Military Health System, Tricare, the Tricare pharmacy program, and the civilian sector pharmacy. As well, internal reports, communications, and briefing slides were provided by personnel at the Bureau of Medicine and Surgery and the Department of Defense Pharmacoeconomics Center. Much of the information and many of the reports came from the Pharmacy Data Transaction Service, the Department of Defense's fully integrated pharmacy information system operated by the DoD Pharmacoeconomics Center.

This thesis will evaluate the Military Health System's pharmacy benefit to identify cost drivers and evaluate strategies designed to reduce or contain these costs. The objective is to evaluate how effective current strategies are at reducing costs, and to determine if they could be used more effectively. This research will also explore the purpose of existing strategies; are they designed to influence beneficiaries to make more cost effective choices when using their pharmacy benefit or simply mechanisms to shift a portion of the program's costs directly to beneficiaries. Research will include: conducting a detailed analysis of existing data, identifying utilization rates and trends, and conducting an in-depth review of existing literature.

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III. CIVILIAN PHARMACY COST TRENDS AND UTILIZATION MANAGEMENT PRACTICES

A. PRIVATE SECTOR PHARMACY COST TRENDS

1. Introduction

Pharmacy utilization management practices typically applied by civilian health care organizations, such as tiered co-payments and restricted formularies, have been applied in the MHS. The strategy for implementing these management practices is to provide beneficiaries with convenience and choice while still providing incentives and management oversight to efficiently control costs. This chapter will examine current pharmaceutical industry cost trends and utilization management practices in the private sector. The following chapter, chapter IV, will present the cost trends and utilization management practices occurring within the Military Health System, which will be compared with those occurring in the civilian private sector.

2. Private Sector Health Care Cost Trends

Health care costs in the private health sector have increased at an excessive rate and in 2005 accounted for 16 percent of Gross Domestic Product (National Health Expenditure, 2005). As costs increase, private sector firms are finding it harder to provide the same level of health care benefits to their employees. These excessive increases in health care cost have resulted in pressure to contain medical spending. Some firms have reduced the health benefits offered to their employees or raised the portion of costs that the employees pay through cost sharing, or a combination of both, to contain healthcare costs.

In 2004, the amount spent on health care in the United States was $1.9 trillion dollars, representing 16 percent of the Gross Domestic Product, which is up 7.9 percent from previous years (National Health Expenditure, 2005). The Center for Medicare and Medicaid services forecasts that actual spending in the United States for health care in 2015 will exceed $4.0 trillion dollars and will comprise 20 percent of Gross Domestic Product (National Health Expenditure, 2005).

In 2005, an annual survey by the Kaiser Family Foundation and Health Research and Educational Trust, found that employer health insurance premiums rose by 9.2

percent in 2005. This was consistent with annual double digit increases in health insurance premiums experienced during the previous five years. This growth was much higher than the overall inflation of 3.5 percent. It was also higher than employee wage growth of 2.7 percent experienced over the same period (Employer Health Benefits Survey, 2005*)*. Employee spending for health insurance coverage increased 126 percent between 2000 and 2004 (Health Care Expectations, 2005). The survey also found that the percentage of employers offering health benefits to their employees fell from 69 percent to 60 percent in 2005.

As health care costs in the private sector increase, health insurance firms responsible for these costs are shifting more of the cost burden to their beneficiaries. Despite stagnate wage growth, the insurance premiums and co-payments of civilian beneficiaries continue to rise and the benefits offered through their health plans are declining. Beneficiaries in the private sector are being forced to share in an increasingly greater portion of the burden of private sector health care costs. As beneficiaries are forced to share a greater portion of the costs of health care, the law of supply and demand would indicate that these beneficiaries will likely change their behaviors and demand fewer health care services as their share of health care costs increases.

3. Rising Expenditures for Prescription Drugs

Prescription drug spending is the fastest growing component of the private health care sector. From 1990 to 2005, prescription drug spending increased at annual double digit rates; increasing from $40.3 billion in 1990 to over $188.5 billion in 2004. This was more than a 450% increase in spending (National Expenditure Accounts, 2005).

During this period, private health insurance companies substantially increased the percent of drug expenses they paid. In 1990, private insurance companies paid about 26 percent of total drug costs. In 2004, this had increased to 48 percent of total costs. It is very likely that as drug costs increased more Americans opted to join health plans that offered prescription drug benefits. As insurance companies paid a greater percent of the total cost of prescription drugs, the total share of the costs consumers paid for drugs decreased from 56 percent in 1990 to about 25 percent by 2004. Drug prices had increased so significantly over this period that even with a substantial increase in the portion of drug costs paid by insurance companies the average consumer was forced to

pay substantially more out-of-pocket in 2004 for drugs than in 1990 (National Expenditure Accounts, 2005).

4. Factors Increasing the Cost of Prescription Drugs

There are three main factors that appear to contribute to the escalating costs of private sector prescription drugs. These factors are: increased utilization, the continual increase in wholesale prices, and changes in the types and number of drugs available for treating illnesses.

a. Increased Utilization

The aging and overall growth of the American population poses concerns for civilian health care organizations with regard to pharmacy cost and utilization. As the life expectancies of Americans continue to increase, and the baby boomer generation grows older, the average age of the American population increases annually. Americans over the age of 65 that are eligible for Medicare account for 12.6 percent of the total U.S. population (Census Bureau, 2006). They require an average of 20 prescriptions a year. In comparison, the average person in his or her 20s requires an average of only 3 prescriptions per year (Drug Benefit Trends, 2000).

The increase in total population is another contributor to prescription drug utilization. In the United States, the population has grown by 9 percent from 1994 to 2005. It surpassed 300 million in 2006, making the United States the third most populated country in the world (Census Bureau, 2006). These trends will undoubtedly increase demand for prescription drugs.

Overall, the number of prescription drugs purchased increased by 71 percent between 1994 and 2005; from 2.1 billion prescriptions filled in 1994 to over 3.6 billion filled in 2005. The average number of retail prescriptions per capita increased from 7.9 in 1994 to 12.3 in 2005 (National Expenditure Accounts, n.d.). Americans are using more prescription drugs to treat and manage medical conditions than in the past.

b. Drug Price Increases

The price of prescription drugs increases substantially every year. Retail prices increased at an annual average rate of 8.3 percent from 1994 to 2005. The average retail price in 1994 was $28.67 and had increased to $64.86 by 2005 (Industry Facts at a Glance, n.d.). The main contributor to the increase in retail drug prescription

expenditures has been the increase in wholesale drug prices. The average wholesale prices for all drugs increased 7.1 percent in 2004 and 6.6 percent in 2005 (Associated Press, 2005). These increase are less than the increase experienced over the previous ten years, but are still indicative of the over all trend of wholesale drug prices outpacing general inflation by two or three times. In fact, for this period, these increases are more than twice the 2.5% average general rate of inflation experienced over the same time period (Consumer Price Index, n.d.). Large annual increases in wholesale drug prices are major contributors to the increases in prescription drug costs. Any increases in manufacturers' wholesale prices get passed through the system, regardless of the final purchaser.

c. New Drugs

New drugs entering the market also contribute to the increase in drug spending. Often new drugs entering the market have one of three purposes: to replace an older, less expensive medication that is about to loose its patent; to supplement existing drugs used in treatment; or to treat a condition that was not previously treated through drug therapy. The new drugs replacing older drugs that are loosing their patents are often designed to do more than the drugs they replace, or in some way become more user friendly (e.g. the new drug is taken once a week vice once a day). Drugs are often introduced that are not designed to replace another drug, but to supplement it. Society has evolved to demand a quick answer to everything, a trend that also applies in medication treatment. This attitude has resulted in more care focusing on treatment of symptoms of illness as apposed to cures to the illness. Many new drugs are being introduced to provide relief from these symptoms with no regard to curing the actual illness. Regardless of the purpose for which a drug enters the market, it usually results in an increase in spending.

B. PRIVATE SECTOR UTILIZATION MANAGEMENT PRACTICES

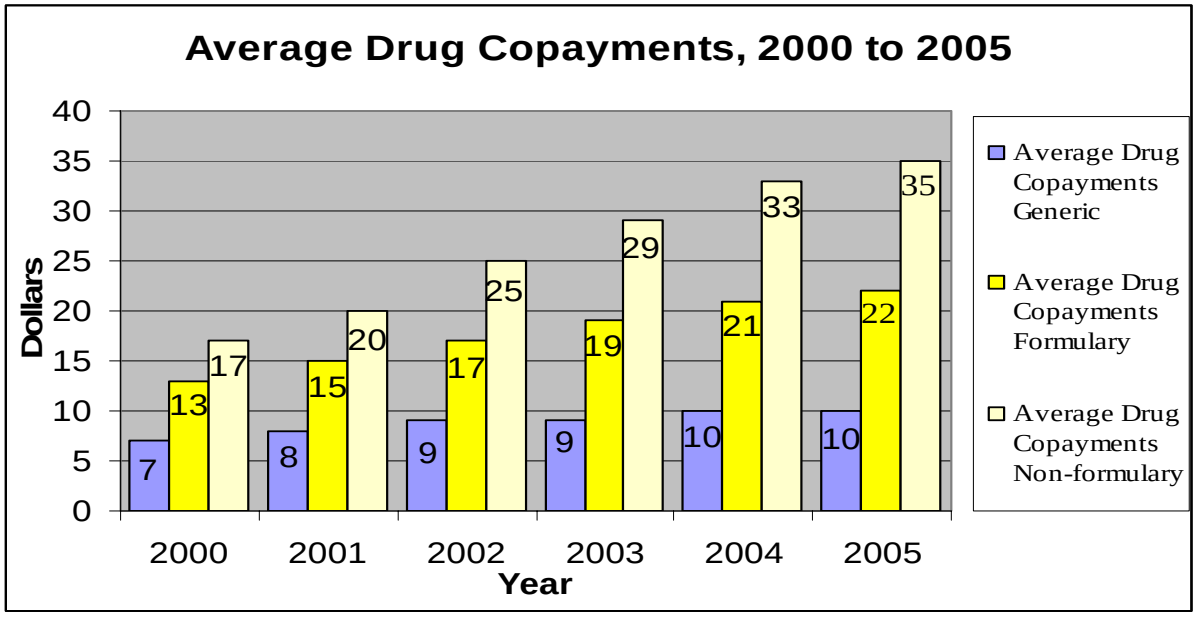
1. Responses to Increasing Prescription Costs

As private sector prescription drug prices continue to rise, pharmacy utilization management has become one of the top priorities among private sector insurance organizations, particularly in today's health care environment where 4 of every 5 people who visit their physician leave with a prescription (NACDS, n.d.). These private sector

health plan managers have implemented a variety of strategies to attempt to contain the rising costs of prescription drugs. They have implemented utilization management strategies and attempted to negotiate discounts or rebates.

Many plans have responded to increasing prescription drug costs by excluding certain drugs from coverage, using quantity dispensing limits and increasing enrollee cost-sharing amounts. In 2005, about three-quarters (74%) of workers with employer-sponsored coverage had a cost-sharing arrangement with 3 or 4 tiers. This was two and a half times more than plans requiring tiered cost sharing in 2000 (Employer Health Benefits, 2005). Co-payments for non-preferred drugs (those not included on a formulary or preferred drug list) doubled from an average of $17 in 2000 to $35 in 2005. Co-payments for preferred drugs (those included on a formulary or preferred drug list, such as a brand name drug without a generic substitute) increased by 69%, from $13 in 2000 to $22 in 2005 (Prescription Drug Trends, a chart-book, 2000).

Figure 2. Average Drug Co-payments, 2000 to 2005



Source: After Kaiser Family Foundation and Health Research and Educational Trust, Annual Survey of employer-Sponsored Health Benefits, 2000-2005 data

2. Pharmacy Utilization Management Strategies

Nearly all private health insurance companies employ some combination of pharmacy utilization management strategies and best business practices to control pharmacy costs, and most centrally administer these programs. The business practices

and strategies used to control drug program costs are designed to influence the behaviors and attitudes of stakeholders in the pharmacy benefits process. These stakeholders include the administrators, drug manufacturers, pharmacies/pharmacists, and consumers (Kreling, 2000). Centralizing pharmacy administrative activities represents the first step in developing an effective pharmacy utilization management program. Many of the other utilization management strategies, such as information systems integration, manufacturer rebates, and formulary uniformity rely on this centralization to be conducted efficiently.

a. Fully Integrated Pharmacy Information Systems

The most important utilization management strategy is the design and implementation of a fully integrated pharmacy information system. The value of such an information system in successfully managing pharmacy benefit programs cannot be overemphasized. To be fully utilized, these systems must serve as more than just data repositories; they must be integrated decision support tools for prospective utilization management by pharmacists and administrators. Most private sector health care organizations use these systems to collect, analyze, and report data for disease management, provider profiling, and to monitor trends. They also use these systems to conduct prior authorization, online edits, and other prospective drug utilization review (PDUR) programs (Edlin, 2001). A fully integrated pharmacy information system is the key to tracking, storing and accessing comprehensive prescription drug cost and use data. This information is central in managing the pharmacy benefit.

b. Formulary Management

Formularies are a predefined list of covered or reimbursable drugs (Kreling, 2000). Recent studies have shown that the use of formulary management strategies can significantly reduce prescription drug utilization and costs (Motheral et al, 2000). These strategies are used to influence the utilization behaviors of providers and patients, and normally involve combinations of exclusions, limitations, and prior authorizations, as well as a tiered cost sharing mechanism.

Formularies are most often defined as open, closed (restricted) or preferred (partially restricted). Open formularies, as the name implies, include all available drugs. A closed or restricted formulary includes only those drugs that are approved by the pharmacy benefit manager. Closed formularies may include only one

drug per drug class, or allow multiple drugs within each class (Kreling, 2000). Preferred or partially restricted formularies also include only those drugs listed by the pharmacy benefits manager, but allow exceptions through prior authorization procedures or at an increased out of pocket expense to the patient (Kreling, 2000; DoD, 1999).

Decisions to exclude drugs from a closed or preferred formulary are normally made based on cost and medical necessity. Cost based drug exclusions are made for numerous reasons. The benefits manager may have negotiated volume purchase agreements, which require them to restrict other similar drugs, or list drugs as preferred on their formularies. Similarly, formularies may restrict brand name drugs in lieu of bioequivalent generics (Motheral et al, 2000). On a partially restricted formulary, cost sharing by the patient may be increased for brand name or non-preferred drugs. Drugs may also be excluded from formularies because they are deemed medically unnecessary. These drugs include those used for cosmetic situations or quality of life conditions such as vitamins or appetite suppressants (DoD Pharmacy Benefit Report, 1999). Quality of life drugs, such as Rogaine and Viagra, may have limitations imposed on the amount prescribed during a certain period of time. Limitations may also be placed on certain drugs based on their potential for abuse or misuse (DoD Pharmacy Benefit Report, 1999).

When developing formulary management strategies, it is important to balance cost reduction and patient satisfaction, as more than 70% of healthcare consumers cite pharmacy benefits as their primary reason for purchasing a health plan (Fahey, 1996). While it is generally accepted that formulary management can result in decreased utilization and lower costs, these strategies can also have a negative impact. Pharmacoeconomics represents an evolving field in which prescription drug utilization can be compared with the costs and outcomes of other medical treatments to improve the allocative decision-making process of formulary management (Evans et al, 2000). Recent studies suggest that the increased use of new and existing drugs may result in lower total health care expenditures overall. Conversely, the restricting or limiting of use of these same drugs may result in higher health care expenditures (Grabowski, 1998). Balancing unnecessary utilization and the economic benefits of prescription drugs through formulary management strategies can be controversial and difficult to achieve.

c. Generic Substitution

Prescription drugs come in two basic forms, brand name and generic drugs. Generic drugs are copies of brand drugs whose patents have expired. A generic drug is required to maintain the same active ingredients as the brand drug. The main difference between a brand name drug and a generic drug is price and the way that they look. The generic drug is much cheaper and legally must not look exactly like the name brand that it competes against.

Requiring the substitution of generic drugs for brand name drugs is a common cost reduction strategy used in the civilian health care industry. As generic drugs are considerably less expensive than their brand name counterparts, an incentive exists to influence consumers, providers, and pharmacists to utilize generic alternatives whenever possible. This is achieved through cost-sharing mechanisms, higher dispensing fees and maximum allowable cost (MAC) programs.

Cost sharing mechanisms are designed to target the consumer and often require a higher co-payment or coinsurance for brand name drugs that have a generic equivalent (Kreling, 2000). To provide incentives for the pharmacist/pharmacy to dispense generic rather than the brand name drugs, substitution strategies normally involve higher dispensing fees for generic drugs. As a further incentive, the third party payers may only agree to reimburse at a MAC for generic drugs, thereby making the pharmacist/pharmacy responsible for the difference in cost between the generic and brand name drug (Kreling, 2000).

d. Cost Sharing

Cost sharing is a management strategy designed to influence utilization by shifting a portion of the prescription cost responsibility to the consumer (Kreling, 2000). Through cost sharing strategies, the consumer becomes aware of the differing costs for brand name and generic drugs by shifting a portion of the cost to them. This is designed to influence them to make more cost effective choices. Historically, these strategies required patients to make a fixed price co-payment that differs between brand and generic drugs for every prescription they fill regardless of the actual drug cost. The co-payment for the brand drug is higher than that associated with generic drug, thus providing an incentive for the patient to use the generic drug. According to a study by Wyeth-Ayerst

(1999), nearly 80% of employer prescription drug plans require some form of co-payment for filling prescriptions in retail pharmacies. Most private insurance companies have broadened this policy by adopting a three-tiered co-payment system that differentiates between generic, brand name, and formulary drugs (Penna, 2000). In a three-tier co-pay system, generic or preferred drugs require the least co-pay, which is commonly set at $10.00 in most programs (Figure 2). The second tier is for brand name medications and carries a co-payment that is normally about twice that of the first tier (Penna, 2000). The third tier requires the highest co-payment, averaging $35 in most plans today (Figure 2), and is commonly reserved for newly approved medications and expensive non-formulary drugs (Penna, 2000).

In addition to tiered co-payments, coinsurance is a mechanism also used in cost sharing. Coinsurance strategies require patients to pay a percent, such as 25 percent, of the drug cost for each prescription being filled. Similar to the tiered co-payment systems, this percentage may vary depending on whether the drug is generic, brand name, or non-formulary; this is less common in coinsurance cost sharing strategies (Kreling, 2000). Coinsurance rates vary, but are usually set at between 20 and 30 percent of the drug cost (Kreling, 2000). As prescription prices continue to increase, more of the economic burden is being shifted to the consumer. This could potentially influence patients to forego expensive drug treatment or to utilize less effective drugs because they are less expensive. Such behavior could potentially have a negative impact on health outcomes, as well as on future healthcare expenditures.

e. Volume Purchase Price Negotiations

Many health plans have attempted to use their purchasing power to negotiate discounts or rebates with drug manufacturers. The larger the health plan, the more power they have in negotiating lower discounts. It is becoming more common for smaller health plans to combine their negotiating power by working with a pharmacy benefit manager. A pharmacy benefit manager pools the smaller health plans together and thus increases their negotiating power. This power is gained through the ability to control market share. If the manufacturer wants its drug to remain on the health plan's formulary and to be available to the consumer, they are required to provide a discount or rebate. Negotiations for discounts and rebates work best when there are competing

manufacturers that produce similar drugs and as generic drugs are introduced into the market.

These volume purchase price negotiations are a commonly used cost management strategy within the civilian health care sector. Pharmacies that agree to the negotiated prices are included in the network of pharmacy providers. Drug manufactures that agree to the negotiated prices have their drugs remain on the formulary, usually meaning that their competitor's drugs are excluded. According to Kreling (2000), these negotiated prices based on volume and a restricted network can be some of the lowest in the country. The actual pharmaceutical prices that are negotiated represent an ingredient cost plus a dispensing fee that varies depending on whether the drug is generic or brand name (Kreling, 2000). The ingredient cost for a brand name drug is normally calculated by deducting a certain percentage from the average wholesale price (AWP). In a survey conducted by Wyeth-Ayerst in 1998, this deduction averaged about 13%. For generic drugs, or those drugs for which the patent period has expired, the price may be calculated in the same manner, or by a maximum allowable cost (MAC) per unit dispensed (Kreling, 2000).

f. Additional Practices

Consumers are using a variety of strategies to reduce prescription drug costs. Many are asking their physicians to prescribe the cheapest available drug or specifically asking for generic drugs. They are beginning to compare drug prices using the Internet and are more apt to compare prices than just a few years ago. Some are choosing to use a cheaper over-the-counter drug in place of their prescribed drug. They are also buying drugs in bulk and pill-splitting, using mail-order pharmacies, and using pharmaceutical company or state drug assistance programs (Herrick, 2004).

Recently, there have been some health plans, and even some States, that have attempted to influence Congress to pass laws that would allow drugs to be purchased from distributors outside the United States. Purchasing prescription products from distributors in other countries is called importation or reimportation if the drugs were originally manufactured in the US. It is currently not lawful for individuals or commercial entities, such as pharmacies or wholesalers, to purchase prescription drugs from other countries. However, the government does not always enforce these laws. It is

estimated that prescription drug purchases from Canada through Internet sales and travel to Canada, totaled about $700 million in 2003. It is believed that an additional $700 million in imported drugs entered the country from the rest of the world, mostly through the mail and courier services (Report on Drug Importation, 2004). The actual amount saved by importing is often disputed, but it is acknowledged that identical drugs cost less outside the United States. There are also concerns about drug safety and marketplace competition.

C. OUTLOOK FOR THE FUTURE

Despite a greater focus on developing and implementing pharmacy utilization management practices, prescription drug spending in the United States is projected to continue increasing substantially over the next decade. Prescription drug spending is projected to increase from $188.5 billion in 2004 to over $446.2 billion by 2015. This is a projected increase of 138 percent. The yearly increases are expected to average around 8.4 percent annually, through 2015. Drug spending as a percent of overall health spending is projected to increase from 10% in 2004 to 11% in 2015. Over the next decade, Health and Human Services projects that the largest contributing factor in drug expenditure increases will be due to increased utilization because of the aging of the American population (Borger et al, 2006).

Although the projected increase of 8.4 percent annually is well above the inflation rate, it is lower than what was experienced during the past decade. Much of this slow down is attributable to using lower cost substitutes, such as generic drugs. Brand name drugs are protected from competition from generic drugs until their patents expire. Once a patent expires, generic drugs can be produced that compete with these brand name drugs. Over the next four years, patents for 30 of the top 60 most prescribed brand name drugs will expire (Fuhrmans, 2006). Currently, 53 percent of all prescriptions filled in the United States are filled with generic drugs; with 30 of the top 60 brand name drugs loosing their patents, the percent of generic drugs being used should increase, resulting in an estimated $49 billion in savings by 2010 (Fuhrmans, 2006).

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IV. TRICARE PHARMACY COST TRENDS AND UTILIZATION MANAGEMENT PRACTICES

A. TRICARE PHARMACY COST TRENDS

1. Introduction

Like in the private health sector, prescription drug expenditures in the military health system have experienced rapid growth over the past decade. These trends are likely to continue as the beneficiary population continues to age and as drug research and development results in new or improved drugs to treat and manage larger quantities of medical conditions and illnesses. Increased pharmacy utilization and the rising cost of prescription drugs within the Military Health System are further exacerbated by the dispensing location used by the beneficiaries to fill their prescriptions. A considerable cost difference exists between the types of dispensing locations offered through the Tricare pharmacy benefit; retail pharmacies are by far the most expensive option for the military health system. Current trends have increased the cost of providing the prescription drug benefit at a faster rate than any other single component of the military health system over the past five years.

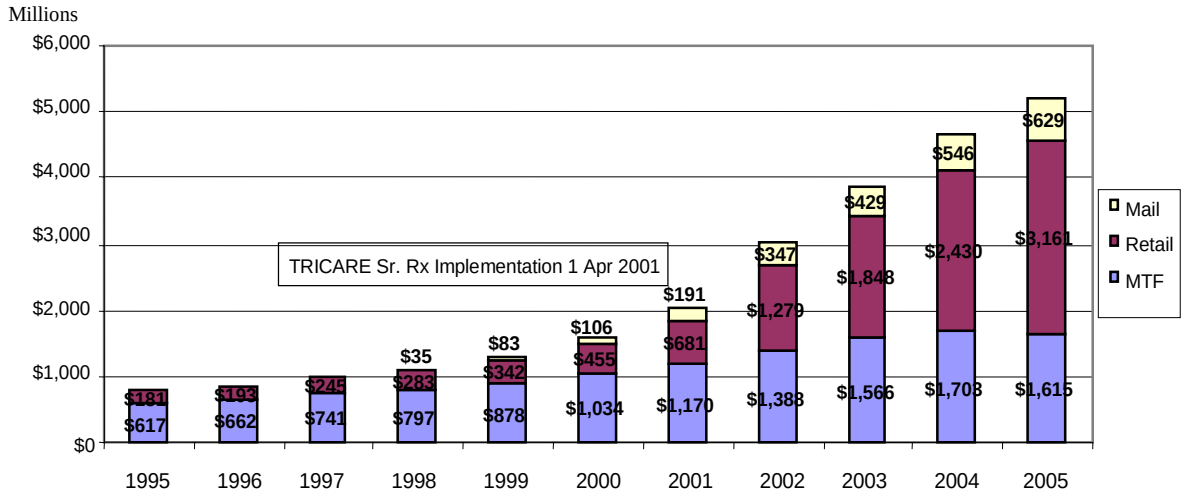
The Military Health System has adopted many pharmacy utilization management practices such as tiered co-pays and restricted formularies. The strategy for implementing these management practices, is to provide beneficiaries with convenience and allow choice while still providing incentives and management oversight to efficiently control costs. This chapter will present the cost trends and utilization management practices occurring within the Military Health System.

2. Rising Expenditures for Prescription Drugs

Like in the private sector, prescription drug spending is the fastest growing component of the Military Health System. The Department of Defense's Pharmacoeconomics Center estimates that the military health system spent approximately $1.6 billion on prescription drugs in fiscal year 2000 and that spending had increased to over $5.4 billion by fiscal year 2005. This $3.8 billion increase in the cost of prescription drug benefit represents a 338 percent increase in costs (PEC estimate using PDTS Data). This is very similar to the growth experienced within the private sector. Figure 3

demonstrates how the cost of providing the pharmacy benefit has more than tripled between 1995 and 2005.

Figure 3. DoD Drug Expenditures FY 1995 thru FY 2005



Percent increase over prior year

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Overall		7%	15%	13%	17%	22%	28%	48%	28%	22%	15%
Mail					137%	27%	81%	82%	24%	27%	15%
Retail		7%	27%	16%	21%	33%	50%	88%	45%	32%	30%
MTF		7%	12%	8%	10%	18%	13%	19%	13%	9%	-5%

* MTF costs do not Include dispensing costs

* TRRx and TMOP are net cost to government

Source: From Department of Defense Pharmacoeconomic Center using PDTS and M2 data

The MHS, unlike the private sector, has not attempted to offset these increasing drug expenditures by shifting a larger portion of the expenditures to the beneficiary. When TRICARE began, the MHS implemented a two tiered co-payment schedule. Since then, there has only been one change made to this pharmacy co-payment schedule.

In 2001, Congress mandated expansion of the pharmacy coverage to include the 1.8 million military retirees and their dependents over the age of 65, increasing the beneficiary population eligible for the pharmacy benefit by nearly 25 percent. This mandate created the TRICARE Senior Pharmacy Program. Prior to this expansion, these retirees and dependents could only use the military prescription benefit at MTF pharmacies on a space available basis, where prescriptions were dispensed at no cost to

beneficiaries. Under the Tricare Senior Pharmacy Program these over 65 beneficiaries could now fill their prescriptions at any of the four sources, MTF pharmacies, retail network pharmacies, the Tricare Mail Order Pharmacy, or non-network retail pharmacies.

This sudden increase in eligibility was expected to correspond with an increase in utilization. If these new beneficiaries chose to fill a majority of their prescriptions at retail pharmacies using brand names drugs, then Tricare pharmacy expenditures would be significantly higher than if they filled them with generic drugs at MTF pharmacies or through the TMOP, especially for high-price, widely prescribed drugs used to treat chronic illnesses. To incentivize these over 65 beneficiaries, and all beneficiaries for that matter, to fill a large portion of prescriptions using less costly generic and formulary drugs at the MTF pharmacies, Tricare replaced the existing co-payment schedule with a three-tiered co-payment schedule. The new co-payment schedule not only applied a co-payment of $3 for a generic drug and $9 for a brand drug dispensed at retail pharmacies and TMOP, as the old schedule did, but also required beneficiaries to pay a $22 co-pay for any drug not on the preferred formulary.

3. Factors Increasing the Cost of Prescription Drugs

The main factors that appear to contribute to the escalating expenditures of prescription drugs within the MHS are similar to those affecting the private sector. These factors are: increased utilization and dispensing location choices, the drug acquisition prices and changes in the types and number of drugs available for treating illnesses. Though the factors are the same, there is a slight twist in how and to what extent each of these factors is affecting expenditures for prescription drugs within the Military Health System.

a. Increased Utilization

Since 1995, the demographic population of the MHS has increased and aged significantly. The population of eligible active duty beneficiaries and their family members has steadily declined. This decline has been offset by a steady increase in the population of retirees and their family members, resulting in a beneficiary population that is older and 8.6 percent larger. It is intuitive to understand that as a population ages it becomes sicker and uses more prescription drugs. This increase and aging of the beneficiary population in fact increases utilization of prescription drugs. The increase in

use due to age can be demonstrated by reviewing the increase in the average number of prescription drugs used per beneficiary per year. From 2003 to 2005, the average number of prescription drugs per beneficiary increased by 19 percent (Evaluation of the Tricare Program, 2006).

b. Increased Use of Retail Network Pharmacies

Expenditures for prescription drugs obtained from retail pharmacies, network or non-network, are typically much higher than those dispensed through MTF and the TMOP. This is primarily due to volume purchase price negotiations and the interpretation of the Veterans Health Care Act of 1992. Drugs dispensed at MTF pharmacies and the TMOP are purchased at prices negotiated directly with drug manufacturers by the Defense Supply Center in Philadelphia and the Department of Veterans Affairs. These negotiated prices do not apply to retail pharmacies and, as such, the prices at retail pharmacies can be two and even three times as much.

Figure 4 illustrates the significant variations in costs that exist across the three points of service and the effect that dispensing locations have on prescription drug expenditures within the Tricare pharmacy distribution network. Figure 4 is based on acquisition costs of the top 50 brand name pharmaceuticals and it compares them across each of the dispensing locations. The average cost of dispensing the top 50 most prescribed drugs is nearly 40 percent higher at a retail pharmacy than at a Military Treatment Facility pharmacy. Despite the significant savings that can be realized by the beneficiary, there are no co-payments when filling prescriptions at MTF pharmacies, and Tricare beneficiaries fill prescription drugs at Military Treatment Facility pharmacy, the number of prescriptions filled at retail networks has steadily increased.

Figure 4. Prescription Drug Cost Analysis by Dispensing Location

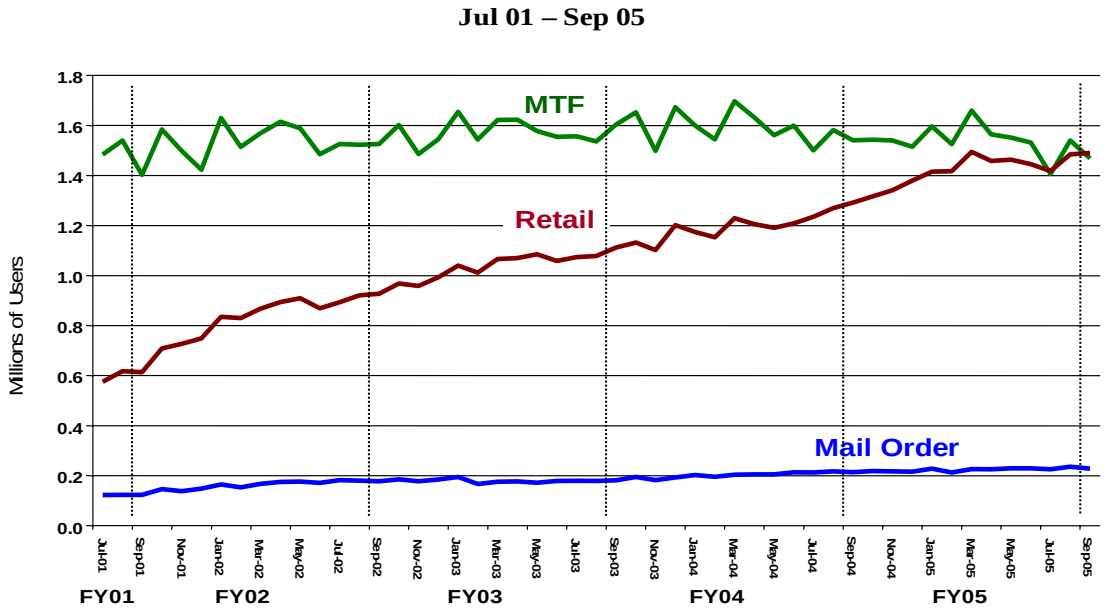
Averages for 90-day supply of Brand Name Drugs

	MTF	TMOP	TRRx
Drug Cost	$ 142	$ 173	$ 358
Refund	n/a	n/a	- $ 99
Net Drug Cost	$ 142	$ 173	$259
			FCP = $ 210
Dispensing Fee/Cost	+ $ 8 (estimate)	+ $ 11	+ $ 6
Co-pay	n/a	- $ 9	- $ 27
Net Rx Cost	$ 150	$ 175	$ 233

Source: After PDTS, 1 Oct 04 – 30 Jun 05, Top 50 TRRx NDCs

The general pattern over time, as illustrated in Figure 5, demonstrates that Tricare beneficiaries are filling more of their prescriptions at retail pharmacies. The proportion of drugs dispensed at retail pharmacies dramatically increased while the proportion of prescriptions dispensed at MTFs actually declined. The TMOP also saw an increase in use, but not nearly as dramatic as the retail pharmacies. This trend has serious financial implications as the acquisition costs of prescriptions drugs dispensed at retail pharmacies are much higher.

Figure 5. Dispensing Locations Used by Tricare Beneficiaries



Source: From PDTS

c. Drug Price Increases

The Military Health System relies on the private sector drug manufacturing industry to procure prescriptions drugs. As previously discussed, when analyzing cost drivers in the private sector health care industry, the price of prescription drugs has increased substantially every year since 1995. These increases have been two or three times the rate of inflation. Despite being able to negotiate volume price purchase discounts, these increases in manufacturers' prices get passed through the system, regardless of the final purchaser. Increases in drug prices impact the retail pharmacy more than the other two dispensing locations, as federal prices negotiated through volume purchase price negotiations are not applied at retail pharmacies.

d. New Drugs

The physicians that practice in the MHS are well educated and extremely professional. Perhaps more than their counterparts in the civilian health care sector, they are encouraged to continually and aggressively seek continued medical education. Drug representatives also visit military physicians and explain new drug treatments. As new drugs enter the market, military physicians and beneficiaries are just as likely to be

exposed to the drug and its uses as are their civilian sector counterparts. In this way, the introduction of new drugs impacts the MHS in much the same manner earlier presented for the private sector.

B. PHARMACY UTILIZATION MANAGEMENT PRACTICES

1. Response to Increasing Prescription Drug Costs

As a result of increasing prescription drug costs, the U.S. Congress mandated that the Tricare pharmacy benefit be reformed and adopt best practices being used in the civilian sector. Under title 10, U.S. Code, Section 1074g, Congress required the Secretary of Defense to establish an effective, efficient, and integrated pharmacy benefits program. This is to be accomplish by implementing a uniform formulary, based on relative clinical effectiveness and cost effectiveness; establishing cost sharing requirements, including a tiered co-payment structure for drugs based on their designation as generic or brand and formulary or non-formulary; assure that drugs not on the formulary are available at a non-formulary co-payment; and implementing other civilian practices. The Department of Defense has been developing an integrated pharmacy benefit and implementing civilian utilization management strategies since the beginning of TRICARE in 1995. In 2004, they began to reform and redesign the pharmacy program into a single, integrated program. This is being accomplished through standardized formulary management, promoting the use of generic drugs, encouraging beneficiaries to use cost effective dispensing locations to fill prescriptions and applying volume purchase price negotiations.

In spite of these efforts to manage more efficiently, Tricare pharmacy expenditures continue to rise. Much of this growth can be attributed to the increase in utilization due to a growing and aging beneficiary population, the expansion of benefits and the introduction of new drugs into the market.

a. Fully Integrated Pharmacy Information Systems

The Military Health System implemented a fully integrated pharmacy information system, known as the Pharmacy Data Transaction System (PDTS), between December 2000 and June 2001. The PDTS is a centralized data repository that was created to improve patient care, reduce pharmacy related costs, capture drug utilization and expenditures, and produce pharmacy management reports (IPS/PDTS, 2006).

PDTS is fully integrated across the dispensing locations available to Tricare beneficiaries; Military Treatment Facility pharmacies, TMOP, and the Tricare network of retail pharmacies. PDTS is also integrated with the MHS electronic medical record. By being fully integrated, PDTS can be used to gather data from all locations and store this data at a central repository that can be viewed by military physicians. PDTS is also used to create a common patient medication profile for all beneficiaries. Establishing a common patient medication profile improves quality and enhances patient safety by reducing the likelihood of adverse drug to drug interactions or duplicate treatments. Physicians and pharmacists can view the complete medication history of a patient before prescribing or dispensing a drug. Most civilian organizations do not have an electronic medical record that is integrated with their pharmacy information system; thus civilian physicians cannot view the complete medication history as in the MHS. Since the system launched in 2000, approximately 171,000 potentially life-threatening drug interactions have been identified and prevented (Department of Defense, 2006).

PDTS is located at Brooks Air Force Base in San Antonio, TX and administered by the Department of Defense Pharmacoeconomics Center (PEC). PDTS collects data for every prescription prescribed and filled at Military Treatment Facility pharmacies, TMOP and retail network pharmacies. This data is then used to build reports and management tools that can track drug usage and cost trends. PDTS is also used to analyze formulary management and provide information to assist in making utilization management decisions (IPS/PDTS, 2006). Like the civilian sector fully integrated pharmacy systems, the value of the PDTS system as a tool in successfully managing the TRICARE Pharmacy benefit cannot be overemphasized nor fully quantified.

b. Formulary Management

The MHS is directed under title 10, U.S. Code 1074g, to establish an effective, efficient, integrated pharmacy benefits program that includes a Uniform Formulary for pharmaceutical agents. The progress in becoming compliant with this direction was an evolving process until the Department of Defense published a Final Rule on April 1, 2004, to implement the Military Health System's formulary management program. The formulary management program covers all drugs dispensed through Military Treatment Facility pharmacies, the TMOP and Tricare retail network

pharmacies. Formulary management is accomplished through the establishment of the Uniform Formulary, the Basic Core Formulary and the Extended Core Formulary (HA Policy: 04-032).

Uniform Formulary The uniform formulary process establishes which drugs will be covered under the TRICARE pharmacy program, or carried on the Uniform Formulary. All drugs are classified as either formulary, meaning they are on the Uniform Formulary, or non-formulary, meaning they are not on the Uniform Formulary. Under the Final Rule, the Department of Defense Pharmacy and Therapeutics Committee was established to consider the relative clinical effectiveness and cost effectiveness of all the drugs within a therapeutic class and then recommend which medications should be included or excluded from the Uniform Formulary. Drugs are then classified into the categories of generic, formulary, or non-formulary according to their formulary status. This process also determines under which of the three cost-share tiers a drug is covered under and the appropriate co-payment to be charged. Military Treatment Facility Pharmacies are not permitted to carry non-formulary drugs, and they are not required to carry all drugs on the Uniform Formulary (HA Policy: 04-032).

Basic Core Formulary To assure that there is uniformity among the drugs carried at Military Treatment Facility pharmacies, the Military Health System also established and uses a Basic Core Formulary (BCF). The BCF is a subset of the Uniform Formulary and only drugs classified on the UF are included on the BCF. The BCF is a formulary that contains a minimum set of drugs from each therapeutic class that are required to support the primary scope of practice found in the Military Health System. The DoD P&T Committee identifies a subset of drugs within each therapeutic class that provides the greatest value among all within the class and, based upon relative clinical and cost effectiveness, requires the drug to be on the BCF and allows other UF drugs from the same therapeutic class to be excluded. Recognizing that not all Military Treatment Facilities provide full service, the formulary management policy makes exceptions for limited service Military Treatment Facility pharmacies and there is a process by which they can gain permission to exclude some BCF drugs. However, they are required to maintain those BCF drugs that are appropriate to the needs of the patients they serve. The BCF applies only to Military Treatment Facility pharmacies and does not

affect the TMOP or the Tricare retail network pharmacies. The BCF is a minimum requirement and Military Treatment Facility pharmacies may get permission to carry one or more of the remaining drugs listed on the UF within a therapeutic class not on the BCF (HA Policy: 04-032).

Extended Core Formulary The Extended Core Formulary (ECF), like the BCF, only applies to Military Treatment Facility pharmacies and does not impact the TRICARE Mail Order Pharmacy or Tricare retail network pharmacies. The ECF includes drugs within therapeutic classes that are used to support specialized scopes of practice that are not included on the BCF but are included in the UF. A Military Treatment Facility is not required to carry any drugs except those on the BCF, however, if a Military Treatment Facility has a specialized scope of practice and the drugs required to support this specialized scope are not on the BCF, the Military Treatment Facility must include these drugs in their ECF. The ECF becomes a subset of drugs in therapeutic classes other than those covered by the BCF that a Military Treatment Facility with a specialized scope of practice must have. If a Military Treatment Facility pharmacy includes a therapeutic class that is on the ECF, then all of the drugs that are on the ECF within that class must be carried by the facility's pharmacy (HA Policy: 04-032).

The MHS employs a closed formulary management strategy at Military Treatment Facilities, and a preferred or partially restricted formulary strategy at the TMOP and at Tricare retail network pharmacies. In 2005, it is estimated that the Military Health System saved $500 million through improved formulary management (Tricare, 2006). Like civilian sector organizations, the Military Health System has been able to use formulary management to save costs and provide safe effective drug treatment to Tricare beneficiaries.

c. Generic Substitution

Requiring the substituting of generic drugs for brand name drugs is a common civilian cost reduction strategy. The Military Health System has a mandatory generic substitution policy that has been in place for 10 years. The main reason for mandating the use of generic drugs is that they are safe and much less expensive than brand name drugs; a prescription filled with a generic drug will cost, on average, $40 less per prescription (PDTS data). The table below lists the 10 most expensive brand name

drugs that have a generic equivalent available and compares the costs associated with each. In many cases the difference in the cost is dramatic.

Table 1. Comparison of Brand Name Drug Cost with Generic Drug Costs

Comparison of Brand Name Drug Costs to Generic Drug Costs				
Brand name	**Brand Average Wholesale Price (AWP)**	**Generic name**	**Generic Cost**	**Generic Savings**
PROZAC 20 MG	$169.49	FLUOXETINE HCL 20MG	$5.40	$164.09
PRILOSEC 20 MG	$143.45	OMEPRAZOLE 20 MG	$45.00	$98.45
ZANTAC 150MG	$94.68	RANITIDINE HCL 150MG	$3.60	$91.08
WELLBUTRIN XL 150 MG	$120.49	BUPROPION EXT REL	$34.80	$85.69
DARVOCET-N 100 100; 650 MG	$80.34	PROPOXYPHENE/ACETAMINOPHEN 100-650MG	$4.50	$75.84
IMDUR 60MG	$79.48	ISOSORBIDE MONONITRATE 60 MG	$5.10	$74.38
BUSPAR 15 MG	$76.50	BUSPIRONE HCL 15MG	$8.10	$68.40
HYTRIN 5MG	$75.69	TERAZOSIN HCL 5MG	$9.00	$66.69
VALIUM 5MG	$64.15	DIAZEPAM 5MG	$1.35	$62.80
ZOCOR 20MG	$164.02	SIMVASTATIN 20MG	$109.50	$54.52
Source: From Department of Defense Pharmacoeconomics Center				

Under the generic drug policy, brand name drugs that have a generic equivalent can only be dispensed if the prescribing physician is able to justify medical necessity for using the brand name drug in place of the generic equivalent. This can be justified if the generic doesn't work for the beneficiary, causes adverse side effects, or the beneficiary's doctor can assert that there is a medical necessity to prescribe the brand-name drug. If the medical necessity determination is approved, the beneficiary can get the brand-name drug for the $9 co-payment. In 2005, less than 1 per cent of patients qualified for the medical necessity exclusion.

The generic substitution policy is resulting in a greater use of generic drugs. According to the Department of Defense Pharmacoeconomics Center, generic drugs accounted for 43 percent of prescription drugs dispensed in 2003, and increased 11 percent to just over 54 percent in 2005 (PDTS data). This is attributable to the

implementation of the three tiered co-payment structure that provides an incentive to use generic drugs, improved formulary management practices, and greater enforcement of the generic drug policy.

d. Cost Sharing

As briefly touched upon earlier, the Military Health System uses a cost share strategy that incorporates a three-tiered co-payment schedule; this is consistent with the private sector's preference to use three-tiered schedules. The three-tiered schedule used by the Military Health System is designed to differentiate prescription medications by generic, formulary or non-formulary drug category and somewhat differentiates between dispensing locations. There is no co-payment if prescriptions are filled at MTF pharmacies and the co-payment schedule is the same when using the TMOP or the TRRx, however, there is a higher cost share associated with using a non-network retail pharmacy (see Table 2). The schedule is the same for all Tricare beneficiaries except active duty service members, who receive medications free-of-charge at all locations, but can not obtain non-formulary drugs at any location unless medical necessity is established (Tricare webpage).

Table 2. Tricare Pharmacy Co-payment Schedule

Tricare Pharmacy Co-payment Schedule			
Place of Service	**Formulary**		**Non-formulary* (Tier 3)**
	Generic (Tier 1)	**Brand Name (Tier 2)**	
Military Treatment Facility (MTF) pharmacy (up to a 90-day supply)	$0	$0	Not Applicable
Tricare Mail Order Pharmacy (TMOP) (up to a 90-day supply)	$3	$9	$22
Tricare Retail Pharmacy Network pharmacy (TRRx) (up to a 30-day supply)	$3	$9	$22
Non-network retail pharmacy (up to a 30-day supply) **Note:** Beneficiaries using non-network pharmacies may have to pay the total amount of their prescription first and then file a claim to receive partial reimbursement.	**For those who are <u>not</u> enrolled in Tricare Prime:** $9 or 20 percent of total cost, whichever is greater, after deductible is met (E1-E4: $50/ person; $100/family; all others, including retirees, $150/person, $300/family) **Tricare Prime:** 50 percent cost share after point-of-service		**For those who are <u>not</u> enrolled in Tricare Prime:** $22 or 20 percent of total cost, whichever is greater, after deductible is met (E1-E4: $50/ person; $100/family; all others, including retirees, $150/person, $300/family) **Tricare Prime:** 50 percent cost

	deductibles ($300 per person/$600 per family deductible)	share after point-of-service deductibles ($300 per person/$600 per family deductible)
Source: From Tricare Webpage (www.Tricare.mil)		

The current co-payment schedule is designed to differentiate between categories of drug, (generic, brand name, formulary or non-formulary) and, to a lesser degree it also differentiates between where a prescription is filled; providing an incentive to use MTF pharmacies and a stick when using non-network retail pharmacies. There are no co-payments associated with any drugs when using an MTF pharmacy. There are less out-of-pocket costs associated with using generic drugs ($3 co-payment) compared to brand name drugs ($9 co-payment) or non-formulary drugs ($22 co-payment) at the TMOP or TRRx. Under this co-pay schedule, using a non-network retail pharmacy is comparatively expensive; the greater of $9 or 20 percent of total cost for formulary drugs and the greater of $22 or 20 percent of total cost for non-formulary drugs. This co-payment structure is designed to influence beneficiaries to choose the less costly generic drugs before brand name drugs and to use formulary drugs instead of non-formulary drugs; this is consistent with how the civilian sector uses three-tiered co-payment schedules.

It is interesting to note that this co-payment schedule does not provide any out of pocket incentive for beneficiaries to differentiate between the TMOP and the TRRx, even though the drug expenditures associated with the TRRx are considerably larger than the other two points of service. The schedule provides an incentive for beneficiaries to differentiate between generic, formulary, and non-formulary drugs and encourage the use of generic. It should be noted that after implementing the three-tiered system, the expenditures associated with the retail network pharmacy and TMOP expanded at significantly larger rates than those associated with the Military Treatment Facility pharmacies (see Figure 3)

The co-payment amounts in the MHS are much lower than those in the civilian sector and have not experienced the same high growth in cost sharing; the MHS is not shifting the cost to beneficiaries. From 2000 to 2005, the MHS co-payments were relatively constant while the civilian sector co-payments increased substantially. The

average co-payment for a brand name drug in the civilian sector rose from $13 in 2000 to $22 in 2005 (see the previous chapter) compared to the MHS's constant co-payment of $9 for brand name drugs. The co-payment for generic drugs increased from $7 in 2000 to $10 in 2005 in the private sector, while it remained constant at $3 in the MHS. Though not implemented in the MHS until 2002, the co-payment associated with the third tier non-formulary drugs is $22 in the MHS, which is much less than the $35 dollars currently charged in the civilian sector.

In the private sector, cost shares and co-payments have consistently risen and civilian organizations continue to reduce benefits and shift more of the economic burden to their consumers. The Military Health System has not followed this trend. Co-payments and cost shares have been relatively constant and are much lower in the Military Health System than in the private sector.

e. Volume Purchase Price Negotiations

Through volume purchase price negotiations, an organization can use buying power provided through economies of scale and market share as leverage when negotiating discounts and rebates with pharmacies and drug manufacturers. When procuring drugs, the Military Health System has several options available for obtaining lower prices. The federal government has used volume purchase price negations and legislative power with great success to obtain discounts on prescription drugs. The Veterans Health Care Act of 1992 established federal ceiling prices (FCPs) for government covered pharmaceuticals and requires a minimum of a 24 percent discount off non-federal average manufacturing prices. These FCPs apply to drug manufacturers when providing prescription drugs to the Military Health System.

Another source of drug discounts is through Federal Supply Schedule (FSS) contracts. When drug manufacturers enter into contracts with a department within the federal government, the Veterans Health Care Act of 1992 requires that these drug manufacturers list their drugs on the FSS to receive Medicaid reimbursement for their products (DoD Pharmacy Benefit Report, 1999; GAO, 2001). Under the law, drug manufacturers must also sell brand name drugs listed on this schedule to the DoD at no more than 76% of the manufacturer's average nonfederal price. The most widely used purchasing vehicle in the federal government is the federal supply schedule for

pharmaceuticals. Using the FSS, the Military Health System can purchase prescription drugs 50 to 58 percent below the average wholesale price (GAO, 2001). In addition to these options, the Military Health System can negotiate contracts directly with drug manufacturers to obtain prices lower than the FSS or FCP.

In the Military Health System, volume purchase price negotiations have been used to target the drug manufacturers rather than the retail pharmacies. The MHS has been able to procure the majority of their drugs supplied to pharmacies in MTFs and the TMOP programs through the Defense Supply Center in Philadelphia (DSCP) using a prime vendor system for delivery (DoD Pharmacy Benefit Report, 1999). This has allowed the Department of Defense to secure significant volume discounts from the drug manufacturers. Prescription drugs dispensed through MTFs and the TMOP are therefore significantly less than those of civilian organizations.

In addition to FPC and FSS, the Military Health System uses two other types of purchasing vehicles to secure "best federal prices" for prescription drugs (GAO, 2001). The MHS may be able to further reduce drug costs by negotiating blanket purchase agreements (BPA) and committed use (requirements) contracts with manufacturers. BPAs offer variable discounts and require specific volumes of the negotiated drugs be purchased and listed in a preferred status on the basic core formulary (GAO, 2001). To enter committed use or requirements contracts the Military Health System works with the Veterans Administration to conduct drug reviews to identify brand name drugs that are therapeutic alternatives within the same class. As a result of these reviews, one drug is selected for adoption based on price, and the respective class is closed to other drugs on the formulary. Similarly, following bioequivalence tests, the DoD secures committed use contracts for generic drugs by conducting competitions for an exclusive contract with one manufacturer. Providers are then required to prescribe, and MTF pharmacies are required to stock and dispense these drugs. Purchase costs for committed use contract drugs are an average of 33% below FSS prices (GAO, 2001).

While these venues for obtaining lower prices are available for pharmaceuticals procured for MTF pharmacies and the TMOP, they have not been applied to the cost of prescription drugs dispensed through Tricare retail network pharmacies. Drug manufacturers have been able to successfully argue that the Veterans

Health Care Act of 1992 does not apply to the Tricare retail network as these pharmacies are not owned or operated by the federal government. Manufacturers do not believe that the government has a legal right to obtain federal pricing in its retail pharmacy network. The Department of Defense is taking steps to challenge this, but legal interpretation continues to be a point of dispute between the manufacturers and the Department of Defense. Both sides are preparing to file lawsuits in federal court (Basu, 2005)

C. ADDITIONAL COMPARISONS

1. Evaluation of Pharmacy Utilization: Tricare Beneficiaries Compared to Civilian Beneficiaries

It is important to understand how pharmacy use among Tricare beneficiaries compares with the pharmacy use among civilian beneficiaries with similar drug benefits. An analysis was performed by the Health Program Analysis and Evaluation Directorate, Tricare Management Activity that compared drug utilization rates of Tricare beneficiaries to those of civilian benchmarks with similar prescription drug coverage. Table 2 represents the findings of this analysis. The data compared the two groups between 2003 and 2005. Prescription drug utilization is hard to quantify, as prescription drugs come in different forms, quantities and dosages. In this analysis, prescription counts from all sources were normalized by computing the total days supply for each and dividing by the average days supply for retail prescriptions (28.5 days). The civilian data was adjusted for each year to reflect the age and sex distribution of the military health system's beneficiary population.

Table 3. Prescription Utilization Rates

PRESCRIPTION UTILIZATION RATES			
Average Annual Prescriptions per Enrollee			
	2003	**2004**	**2005**
Tricare Prime vs. Civilian HMO Benchmark			
Tricare Prime	10.5	10.14	10.71
HMO	6.87	7.79	9.05
Non-Prime vs. Civilian PPO Benchmark			
Non-Prime	7.49	8.43	8.94

PPO	11.00	10.73	11.01
All Tricare Beneficiaries vs. Civilian Benchmark			
Tricare	8.77	9.27	9.83
Benchmark	8.94	9.26	10.03
All Tricare Beneficiaries vs. Prime vs. Non-Prime			
Tricare	8.77	9.27	9.83
Prime	10.5	10.14	10.71
Non-Prime	7.49	8.43	8.94

Source: Health Program Analysis and Evaluation Directorate, Tricare Management Activity using MHS administrative data and the Medstat Group, Inc., MarketScan Commercial Claims and Encounters database, 12/26/2005

According to this data, Tricare beneficiaries use slightly fewer prescription drugs per beneficiary than the organizations they were benchmarked against (see Figure 6). This would appear to indicate the Military Health System is experiencing similar utilization trends as the civilian health care industry. However, comparing TRICARE prime beneficiaries to an HMO benchmark, coupled with a comparison of the non-prime beneficiaries with the utilization rates of a civilian PPO benchmark, provided conflicting results.

Tricare Prime Enrollees used more prescription drugs than did the benchmark HMO enrollees (see Figure 7). The total prescription utilization rate for Tricare Prime enrollees increased by 7 percent between FY 2003 and FY 2005 compared to a 32 percent increase in utilization by the HMO benchmark. This comparison indicates that in 2005 Tricare prime enrollees had an annual average prescription utilization rate that was about 18 percent higher than the benchmark HMO rate.

The complete reverse appears to be occurring when comparing the Non-Prime enrollees to a PPO benchmark. The total prescription utilization rate for non-enrolled beneficiaries rose by 19 percent between FY2003 and FY 2005 while the PPO growth rate was essentially zero. Despite the growth in utilization, the non-enrolled average annual prescription utilization rate per beneficiary was still 19 percent lower than the benchmark PPO rate.

The Tricare Pharmacy Benefit provides the same coverage for all Tricare beneficiaries, regardless of enrollment in Prime, Standard, or Extra. The pharmacy utilization management tools adopted by Tricare were not intended to segregate utilization patterns among the three health plan options; yet the data shows the Prime enrollees use more prescriptions than non-prime beneficiaries on an average annual per beneficiary basis.

Tricare prime enrollees use 20 percent more prescription drugs than non-prime enrollees on an annual average basis. The data also suggests that Tricare Prime enrollees are twice as likely to utilize MTF pharmacies to fill their prescriptions as are non-prime enrollees. This may suggest that Moral Hazard is prevalent within the Tricare Prime enrollee population or it could indicate of adverse selection.

Moral hazard is the tendency for people to use more of a product or service if they do not have to pay the full cost. As the cost incurred by the person decreases, they have a tendency to use more; if the price incurred increases then the person will use less. According to the theory of moral hazard, beneficiaries will demand less products or services as co-payments increase and they will demand more as co-payments decrease.

Adverse selection occurs when someone that is sicker or uses more of a product or service chooses a plan that will allow them to access more of the product or service at a lower cost. An individual that does not demand as much may not be as sensitive to the price because they are healthier and do not use the product or service as often.

There is a trend for TRICARE beneficiaries to fill more of their prescriptions at TRRx. The proportion of drugs dispensed at retail pharmacies has dramatically increased while the proportion of prescriptions dispensed at MTFs has declined. If this trend persists, then the prime beneficiaries using the MTFs will eventually begin using the TRRx. These individuals use a larger portion of drugs and the TRRx is the most expensive venue. If this higher drug use among prime beneficiaries is due to adverse selection, then these individuals are sicker, which is why they use more drugs. If this higher drug use is because of moral hazard, then this migration to the TRRx with its co-payment structure would lead one to believe that once Tricare prime enrollees begin using the TRRx their drug use will mirror that of the non-prime enrollee.

2. How Annual per Beneficiary Prescription Drug Expenditures Compare with Use by the Civilian Population

The MHS prescription drug expenditures by beneficiary status are presented in table 4. This data on MHS drug expenditure rates by beneficiary categories will be compared to civilian prescription drug expenditure rates. Each beneficiary category will be compared with the U.S. civilian population broken down into groups based on similarity of age with the beneficiary category. As an example, active duty military expenditures rates will be compared to the expenditure rates of the civilian population between 18 and 44 because the active duty military population is between the ages of 18 and 44. The most current civilian data available was from 2003, so the comparison will involve expenditure rates in 2003.

Table 4. Average Annual Prescription Drug Expenditures by beneficiary Category

Average Annual Prescription Drug Expenditures by Beneficiary Category			
Beneficiary Category	**2003**	**2004**	**2005**
Active Duty Military (age18 to 44)	$158	$202	$210
Active Duty Family Members (age 0 to 44)	$245	$270	$311
Retirees and Family Members < 65 (age 44 to 65)	$554	$644	$723
Retirees and Family Member > 65 (age 65 and older)	$1133	$1422	$1627
Overall	$430	$572	$515
Source: MHS administrative data, 12/26/2005			

The civilian data for prescription drug expenditure rates by age group was taken from the Medical Expenditure Panel Survey (MEPS) website (http://www.meps.ahrq.gov/mepsweb/). MEPS is a set of large-scale surveys of families and individuals, their medical providers, and employers across the United States. MEPS is recognized in the healthcare industry as one of the most complete data sources on the cost and use of health care and health insurance coverage. MEPS collects data on the specific health services used, the frequency of use, the cost of these services, and how they are paid for, as well as data on the cost, scope, and breadth of health insurance held by and available to the U.S. population. Table 5 compares the average annual per beneficiary prescription expenditures with those of the general population of the United States broken down by similar age groups.

Table 5. Comparison of MHS and Civilian Average Annual Prescription Drug Expenditures in 2003

Comparison of MHS and Civilian Average Annual Prescription Drug Expenditures in 2003		
Beneficiary Comparison	**Military Health System**	**Civilian Population**
Active Duty Military compared to civilian population age18 to 44	$158	$342
Active Duty Family Members compared to civilian population age 0 to 44	$245	$263
Retirees and Family Members < 65 compared to civilian population age 44 to 65	$554	$995
Retirees and Family Member > 65 compared to civilian population age 65 and older	$1133	$1625
Overall MHS population compared to total US population	$430	$611
Source: MHS administrative data, 12/26/2005 and MEPS data retrieved November 2006 from http://www.meps.ahrq.gov/mepsweb/		

This comparison between the annual average MHS expenditures per beneficiary category and civilian populations of similar ages indicates that the civilian population has higher average per beneficiary prescription drug expenditure rates. The lower per beneficiary prescription expenditure rates for the MHS is consistent with the findings of the previous section where it was shown that the MHS beneficiaries fill fewer prescriptions per beneficiary than their civilian counterparts. Because MHS beneficiaries fill fewer prescriptions per beneficiary than their civilian counterparts, it is reasonable to expect the expenditures per MHS beneficiary to be lower.

There are two potential explanations for why per beneficiary utilization rates and per beneficiary expenditure rates are less in the MHS. The MHS population may be healthier and MHS physicians may focus more on preventive medicines, such as mandatory flu shots, than their civilian counterparts thus the illnesses and severity of illness are lower. This would require lower costing drugs and fewer of them to treat these less severe illnesses. The second and more plausible explanation, based on the research in this thesis, is that the MHS has adopted pharmacy utilization management practices and applied volume purchase price negotiations more efficiently than the civilian sector.

3. Proposed Changes to the Pharmacy Co-payment Schedule

The current co-payment schedule was designed to differentiate between categories of drugs, generic, brand name, formulary or non-formulary, but does not effectively differentiate between where a prescription is filled. Just as a co-payment schedule can differentiate between types of drugs by varying the co-payment required for each drug category, the schedule can differentiate between dispensing locations by varying the co-payment amount by where it is dispensed as well. The MHS is unable to apply federal pricing to the TRRx and therefore it is much more expensive for the MHS to allow beneficiaries to use the TRRx in comparison to the TMOP or MTF pharmacies.

The current co-payment schedule does not differentiate between TMOP and TRRx. Also, because of military force reduction efforts there are fewer MTF pharmacies available. There is a migration by beneficiaries from use of MTF pharmacies to the more expensive TRRx. The main reason is that the cost to the beneficiary is less than the convenience and benefit of use the TRRx and there is no substantial difference in out of pocket costs. A simple co-payment schedule change could provide incentives for beneficiaries to use the less costly TMOP or drive the extra miles to the MTF pharmacy.

In the field of economics, elasticity of demand is a measure of the sensitivity of amount demanded to changes in quantity or price. Price elasticity of demand measures the percentage change in quantity demanded resulting from a one-percent change in price. If the quantity demanded only slightly responds to price it is said to be price inelastic, if quantity responds substantially it is said to be elastic. The closer an elasticity measurement is to 0, the less elastic it is (Hosek, 2002).

A study conducted for DoD by the RAND Corporation determined that there is a wide range in the estimates of elasticity of demand for health care. The study found that the elasticity of demand tended to center on -0.17. This means that a one percent increase in the price of health care will lead to a 0.17 percent decrease in the quantity of health care purchased. According to this study, the price elasticity of pharmaceuticals is similar to that of health care. The study also showed that the price elasticity of demand is inelastic at lower levels of cost sharing. There was evidence to suggest that there is a very high cross price elasticity of about .33 among drug substitutes. Cross price elasticity is the measurement of how sensitive a product is to substitutions. This indicates that a

tiered co-payment schedule can be an effective tool to influence behavior of beneficiaries (Hosek, 2002). Differentiating co-payments offered at each location can influence a beneficiary to use the less costly location.

The pharmacy co-payment schedule will change for all beneficiaries in 2007. These changes include: eliminating co-payments for generic drugs at the TMOP and increasing co-payments of generic drugs to $5 and formulary or name brand drugs to $15 at the TRRx. No changes will be made to the MTF co-payments. Table 6 shows the new co-payment schedule.

Table 6. FY 2007 Tricare Pharmacy Co-payment Schedule

FY 2007 Tricare Pharmacy Co-payment Schedule			
	Generic drugs	**Brand-name drugs**	**Non-formulary drugs**
Current co-pays			
Military Facility	$0	$0	not available
Mail order	$0	$9	$22
Retail	$5	$15	$22
Source: From Tricare Webpage (www.Tricare.mil)			

This new benefits structure is timely and support the trends exhibited within the MHS. Increasing co-payments from $3 to $5 for generic drugs at the TRRx while simultaneously dropping the co-payment for generic drugs at the TMOP will theoretically provide incentives for beneficiaries to use the TMOP or MTF to fill generic prescriptions. Likewise increasing the co-payment of formulary drugs from $9 to $15 dollars at TRRx should provide incentives for beneficiaries to choose generic drugs at the TRRx or to fill them at the TMOP for $9. This new co-payment schedule should help to reduce utilization of the TRRx and encourage greater use of the TMOP.

V. CONCLUSION

A. IMPLEMENTATION OF UTILIZATION MANAGEMENT STRATEGIES BY THE MHS HAVE BEEN EFFECTIVE RELATIVE TO THE CIVILIAN INDUSTRY

Prescription drug spending is the fastest growing component of both the MHS and the private health care sector: both have experienced annual double digit growth in expenditures. The cost drivers affecting each of them appear to be the same; increased utilization, out of control drug prices, and an increasing the number of new drugs to treat illnesses.

As MHS pharmacy expenditures escalated, Congress responded by making policy changes that increase access to and coverage of the benefit while simultaneously mandating that the MHS adopt civilian sector utilization management strategies. A comparison of the utilization management strategies being used by the civilian sector and those used by the MHS reveals that the MHS has adopted and implemented civilian sector utilization management strategies.

The implementation of PDTS has improved patient care and been instrumental in reducing pharmacy related costs, capturing drug utilization and expenditures, and producing pharmacy management reports. This system provides seamless access to pharmacy utilization and cost data across all pharmacy points of service. PDTS provides the information needed to make pharmacy utilization management decisions.

The MHS has structured many of its strategies to encourage beneficiaries to use less costly prescriptions. The MHS has implemented an effective formulary management process by establishing the Uniform Formulary, the Basic Core Formulary and the Extended Core Formulary that identifies and categorizes drugs into three tiers. The process used to determine which medications should be included or excluded from the formulary considers the relative clinical effectiveness and cost effectiveness of all the drugs within a therapeutic class. This assures that drugs are categorized not only by cost but by best value. The co-payment cost schedule is designed to differentiate between the three formulary tiers. Higher co-payments are associated with drugs that have less value and lower co-payments are associated with higher value drugs.

The formulary process and cost sharing structure both promote the use of generic drugs. This is a key factor in helping to control total prescription drug costs. The MHS has gone further and has established a generic substitution policy. The goal of all of these strategies is to ensure that there is a balance between quality of care and effective cost-containment strategies.

The Department of Defense has used volume purchase price negotiation strategies to secure significant volume discounts from the drug manufacturers. In fact, prescription drugs dispensed through MTF pharmacies and the TMOP are significantly less expensive than those of civilian organizations. The MHS has been able to procure the majority of the drugs supplied to their pharmacies in MTFs and the TMOP through the DSCP using a prime vendor system for delivery. This has allowed the Department of Defense to secure significant volume discounts from the drug manufacturers. Prescription drugs dispensed through MTFs and the TMOP are significantly less than those of civilian organizations.

The MHS has implement civilian sector utilization management strategies designed to slow increases in pharmacy expenditures. Despite not shifting a greater portion of the cost to beneficiaries, the MHS has experienced results that are as good as or better than those experienced by the civilian sector. If matching the results achieved in the civilian sector is the benchmark for success, then these strategies have been successful.

However, the Tricare Pharmacy program is projected to continue to increase at a faster rate than other components of the MHS. Consequently, this continual increase in the pharmacy budget in proportion to the overall MHS budget demonstrates that the implementation of these civilian utilization management practices, though successful when compared to civilian benchmarks, have not sufficiently contained Tricare pharmacy expenditures.

B. INCREASING THE CO-PAYMENT RATES OF THE CURRENT CO-PAYMENT SCHEDULE WILL NOT DECREASE UTILIZATION

Moral hazard, in the context of the Tricare pharmacy benefit and health care in general, is the tendency of people to unnecessarily demand or use more of a product or service because they do not have to pay the full cost. The current Tricare pharmacy benefit requires a beneficiary to pay a very modest co-payment when compared to the

civilian sector. These co-payments are in no way representative of the true cost of the benefit and some may argue that in relative terms the difference between the co-payment, $3 for generic and $9 for formulary, are so small compared to the actual cost that they do not provide incentives for beneficiaries to differentiate between them. In relative terms, health care is virtually free to MHS beneficiaries when compared to the cost shares charged in the civilian sector ($10 for generic and $22 for formulary).

In theory, the introduction of higher cost shares would raise the cost of the Tricare benefit for beneficiaries, which should lead to less demand or at least a more relevant awareness of the actual costs. This should in turn provide an incentive for beneficiaries to make an educated decision when accessing care through the MHS and thereby increase the MHS's ability to influence their behaviors through co-payments. If this theory holds true, then civilian organizations with higher co-payments should have lower per beneficiary utilization rates and higher generic drug utilization than the MHS, while the utilization of generic drugs compared to formulary within the MHS should hold constant.

In actuality, the Tricare beneficiaries have lower rates of per beneficiary utilization and expenditures when compared to the civilian population. The utilization of generic drugs by Tricare beneficiaries has increased every year since the introduction of the three tiered co-payment schedule; today over 53 percent of all prescriptions filled in the MHS are generic. This is similar to the generic utilization rates in the civilian health care industry. This would seem to indicate that the current co-payments schedule does differentiate between drug tiers and provides as much incentive and behavior modification as the much higher rates charged in the civilian sector. Proportionally raising each of the current co-payments in the schedule might not provide Tricare beneficiaries more incentive to change behaviors; it could just be a cost shifting mechanism.

C. NEW CO-PAYMENT SCHEDULE INFLUENCES BENEFICIARIES TO DIFFERENCIATE BETWEEN WHERE PRESCRIPTIONS ARE FILLED

Utilization management practices alone have not contained the increasing Tricare expenditures. Some of the driving forces behind the ever escalating Tricare pharmacy expenditures appear to be mainly due to continual benefit expansion and increased utilization of the benefit. The current benefits structure is a much better option than any civilian plan as it is less expensive and provides better coverage. In response to

escalating costs, the civilian sector is continually shifting a greater portion of the cost burden to their beneficiaries through higher co-payments and larger insurance premiums, or simply reducing the benefits they offer. History shows that Congress's response to escalating Tricare expenditures has been to implement civilian strategies to increase efficiency and cost effectiveness but simultaneously they increase benefits and reduce out of pocket expenses for beneficiaries. As pressure to contain expenditures continues to mount, Congress may be swayed to change its past behavior and follow the civilian sector by shifting a portion of the cost burden to beneficiaries. DoD officials have made efforts to encourage cost shifting.

Defense Department officials included proposals to raise Tricare enrollment fees and deductibles in the FY 2007 budget request. In this budget request, they also propose changing the pharmacy co-payment schedule. Currently beneficiaries pay 12 percent of their total health care costs; this is well below the 25 to 30 percent that most civilians pay. DoD officials would like to have beneficiaries pay about 25 percent of the cost. According to the CBO, the assumption being used to estimate cost savings maintains that for every 10 percent increase in out-of-pocket costs, the number of beneficiaries using Tricare will fall by one percent. This equates to a price elasticity of -0.10. This means that a one percent increase in the price of health care will lead to a 0.10 percent decrease in the quantity of health care purchased. This is more conservative than the price elasticity estimate of the RAND study of -0.17. If the CBO estimate of -0.10 is accurate, 600,000 beneficiaries will drop out of Tricare by 2015 if the out of pocket expenses are increased to 25 percent. DoD officials contend that the Tricare fee structure is only one-third as costly to beneficiaries as similar civilian plans would be (Philpot, 2005). It is obvious how reducing beneficiary coverage by 600,000 would decrease costs as well how shifting 25 percent of the total cost to beneficiaries would reduce the cost paid by the MHS by 13 percent (beneficiaries currently pay about 12 percent, 25 minus 12 is 13).

Maintaining the position of the past, Congress did not raise Tricare fees or deductibles. However, they did allow the MHS to "reshape" the co-payment schedule of the Tricare pharmacy program. The new co-payment schedule reshapes the incentives. This reshaping should discourage beneficiaries from purchasing maintenance drugs at the more expensive TRRx. The $3 co-payment for generic drugs will rise to $5 in the retail

network but would be free by mail. The current $9 co-pay for brand drugs would rise to $15 in the retail network and $10 by mail. The new co-payment schedule appears to provide incentives for beneficiaries to make cost effective choices when choosing a point of service to fill prescriptions. Based on the research in this thesis, incentivising beneficiaries to avoid the TRRx is an effective cost strategy. Time will show if the co-payments are large enough to actually influence the desired beneficiary behavior.

D. APPLYING FEDERAL PRICING AT RETAIL NETWORK PHARMACIES WILL REDUCE EXPENDITURES

The price that MHS pays for prescription drugs varies across the three points of service, in part because of the differences in statutory rebates and discounts that are applied at each point of service. Currently, the most expensive point of service, TRRx, is also the most used by beneficiaries. The reason that the TRRx is the most expensive is that DoD is unable to apply federal pricing at the TRRx, while it is able to do so at the MTF and TMOP.

DoD would like to apply federal pricing at the TRRx and has made attempts to do so. Drug manufactures are opposed to this and argue that there is no legal basis under the Veterans Health Care Act of 1992 for DoD to apply these discounts at the TRRx. DoD would save an enormous amount of money if federal pricing was applied at the TRRx; conversely, every dollar saved by DoD would be a dollar lost by drug manufacturers. This issue is currently being debated by the U.S. Court of Appeals for the Federal Circuit.

Ultimately DoD must use all of these tools in a multifaceted approach to contain the escalating expenditures of the pharmacy program. Incentivising beneficiaries to choose high value drugs dispensed through the least expensive point of service would dramatically impact the current expenditures. If the DoD is unable to secure federal pricing at the TRRx they must ensure that beneficiaries have the appropriate incentives to migrate to the TMOP. If not, dramatic cost shifting may be the only way to lower expenditures.

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